

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 1781

Application No. 10/531,767
Paper Dated: April 11, 2011
In Reply to USPTO Correspondence of November 11, 2010
Attorney Docket No. 0470-051057

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-16. (Cancelled).

17. (Currently Amended) A composition comprising granules suitable for use in the preparation of a dough, said granules having an average diameter in the range of 30-500 μm and comprising:

a hydrophilic core with a diameter of at least 5 μm , said core containing ~~one or more functional bakery ingredients selected from the group of enzymes, acidulants and hydrocolloids;~~ an enzyme selected from the group consisting of amylases, xylanases, proteases, glucose oxidases, oxygenases, oxidoreductase, trans-glutaminases, (hemi) cellulases and combinations thereof and a water swellable hygroscopic component; and

a lipophilic substantially continuous layer encapsulating the core, said layer consisting essentially of 50-98 wt.% triglyceride fat with a slip melting point of at least 30°C and 2-50 wt.% of a release agent selected from the group of monoglycerides, diglycerides, diacetyl tartaric acid ester of mono- and/or diglyceride, stearyl-lactylates and combinations thereof;

and further comprising one or more bakery ingredients in particulate form, said one or more bakery ingredients being selected from the group consisting of redox agents, emulsifiers, hydrocolloids, flour, salts, malt flour, malt extract, gluten and starch.

18. (Cancelled).

19. (Currently Amended) The composition according to claim 18, wherein ~~the core contains an enzyme~~ is selected from the group consisting of α -amylase, β -amylase,

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xylanase, hemi-cellulase, cellulase, lipase, protease, glucose oxidase, oxidoreductase, lipoxxygenase, peroxidase, ferulic acid esterase, pullulanase, invertase, mannanase, galactomannanase, lactase and combinations thereof.

20. (Previously Presented) The composition according to claim 17, wherein the release agent is selected from the group consisting of monoglycerides, diacetyl tartaric acid ester of mono- and/or diglyceride, stearyl lactylates and combinations thereof.

21. (Previously Presented) The composition according to claim 20, wherein the release agent is monoglyceride.

22. (Previously Presented) The composition according to claim 20, wherein the release agent is diacetyl tartaric acid ester of mono- and/or diglyceride.

23. (Previously Presented) The composition according to claim 17, comprising granules having an average diameter in the range of 60-300 μm and comprising:

- a) a hydrophilic core with a diameter of at least 30 μm ; and
- b) a lipophilic substantially continuous layer having a thickness of at least 10 μm .

24. (Previously Presented) The composition according to claim 17, wherein the lipophilic layer contains between 2 and 40 wt.% of the release agent.

25. (Previously Presented) The composition according to claim 17, wherein the triglyceride fat displays a slip melting point in the range of 30-40°C.

26. (Previously Presented) The composition according to claim 17, wherein

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the triglyceride fat displays an N-profile of $N_{20} > 50$; $10 \leq N_{30} \leq 60$; and $N_{40} < 5$.

27. (Previously Presented) The composition according to claim 17, wherein the average diameter of the granules is in the range of 60-400 μm .

28. (Previously Presented) A method of preparing a dough comprising adding to said dough a composition according to claim 17.

29. (Previously Presented) A dough comprising between 0.01 and 5 wt.% of a composition according to claim 17.

30. (Currently Amended) A method of manufacturing a composition according to claim 17, said method comprising the steps of:

a) preparing a plurality of particles with a diameter of at least 5 μm , said particles containing ~~one or more functional bakery ingredients selected from the group of enzymes, acidulants and hydrocolloids~~ an enzyme selected from the group consisting of amylases, xylanases, proteases, glucose oxidases, oxygenases, oxidoreductase, trans-glutaminases, (hemi) cellulases and combinations thereof and a water swellable hygroscopic component;

b) preparing a blend containing 50-98 wt.% of a triglyceride fat with a slip melting point of at least 30°C and 2-50 wt.% of a release agent selected from the group of monoglycerides, diglycerides, diacetyl tartaric acid ester of mono- and/or diglyceride, stearyl-lactylates and combinations thereof; and

c) spraying the blend obtained from step b) in melted form onto the plurality of particles obtained from step a) to achieve encapsulation of the particles with a substantially continuous layer of the said blend;

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d) cooling the resulting encapsulated particles to obtain a plurality of encapsulated particles that exhibit free flowing behaviour; and

e) incorporating one or more bakery ingredients in particulate form, said one or more bakery ingredients being selected from the group consisting of redox agents, emulsifiers, hydrocolloids, flour, salts, malt flour, malt extract, gluten and starch.

31. (Currently Amended) A method of manufacturing a composition according to claim 17, said method comprising the steps of:

a) preparing a plurality of particles with a diameter of at least 5 μm , said particles containing ~~one or more functional bakery ingredients selected from the group of enzymes, acidulants and hydrocolloids~~ an enzyme selected from the group consisting of amylases, xylanases, proteases, glucose oxidases, oxygenases, oxidoreductase, trans-glutaminases, (hemi) cellulases and combinations thereof and a water swellable hygroscopic component;

b) combining the plurality of particles with triglyceride fat and a release agent selected from the group of monoglycerides, diglycerides, diacetyl tartaric acid ester of mono- and/or diglyceride, stearyl-lactylates and combinations thereof to provide a blend wherein the lipophilic component contains 50-98 wt.% triglyceride fat with a slip melting point of at least 30°C and 2-50 wt.% of the release agent;

c) preparing a homogeneous suspension from the blend obtained from step b), wherein the continuous phase of the suspension is formed by molten lipophilic component;

d) atomising the homogeneous suspension into a gaseous or liquid medium with a temperature below the melting point of the lipophilic component; and

e) recovering the resulting granules; and

f) incorporating one or more bakery ingredients in particulate form, said one or more bakery ingredients being selected from the group consisting of redox agents, emulsifiers, hydrocolloids, flour, salts, malt flour, malt extract, gluten and starch.